

REMARKS

Claims 1-18 are pending, including independent claims 1, 7, 11 and 16. All claims are rejected on the basis of the same prior art as before, and the Office Action now asserts additional rejections by adding a new reference, U.S. Patent No. 6,389,386 ("Hetherington"). The Office Action also rejects all claims under 35 U.S.C. §112, ¶2 as being indefinite, and under 35 U.S.C. §112, ¶1 as being not enabled.

First, Applicant thanks Examiner Knepper for discussing the present Office Action by telephone with Applicant's undersigned attorney on or about December 3, 2008. The Examiner clarified aspects of the Office Action and Attorney Naughton explained the claimed invention and distinctions over the cited art, as set out in more detail below. No agreement was reached, but Applicant believes prosecution will be facilitated by the better understanding of the Examiner's and Applicant's respective positions.

Background of Applicant's Invention

As background, Applicant's invention addresses the situation where text items in multiple languages are to be converted into a voice output, e.g., by using a text-to-speech (TTS) engine. In a conventional TTS engine, a text item is processed and the voice output is generated according to the language of the text item. Thus, for example, a German word is processed and output in the German language, a Japanese word is processed and output in the Japanese language, and so on. Therefore, the need for processes and data for each different language that will be encountered results in a complicated process and requires more resources. (Application, e.g., at ¶¶ 1-6.)

Applicant's claim 1, as amended, recites an automated voice generator that takes a text item in a first language and generates a voice output in the pronunciation of a second language. More specifically, each character in the original text item that is not included in the alphabet of the second language -- but only such a character -- is automatically replaced by a "translating" means with a character or string in the alphabet of the second language that has an equivalent or similar pronunciation to the

pronunciation of the identified character in the first language. The new text item, which includes the replacement character or string from the alphabet of the second language, is neither the original text item in the first language nor a translated word in the second language. This new text item is then output by a text-to-speech engine pronouncing the new text item according to the pronunciation of the second language, where the text-to-speech engine supports the second language but not the first language. Characters that are common to the alphabets of both languages are not replaced, even if the pronunciation of such a character is different in the two languages.

As an example of the operation of Applicant's invention, Fig. 4B depicts a German-to-English rule table by which a German character not included in the English alphabet is replaced by an English character or string having a pronunciation equivalent or similar to the pronunciation of the German character. Thus, the German character "ß" is replaced by the English character string "ss." Applying this rule in Applicant's invention, the German word "Straße" is changed to "strasse" and pronounced in that form in English. Thus, Applicant's invention does not translate the original word into another language ("Straße" would be translated as "street" in English), but rather replaces only characters in the original word that are not found in the alphabet of the second language so that the original text item can be pronounced using the second language.

Applicant's invention provides an advantage over conventional TTS engines, because Applicant's invention reduces the languages needed to provide voice outputs in response to multilingual text items. For example, even if place names are in French, German and English, Applicant's invention can be used to provide voice outputs of all of the multilingual place names using one text-to-speech engine that supports a pronunciation in only one language, e.g., English. (Application, e.g., at ¶¶ 7-9, 12, 31.)

Rejection Under §112/2 Definiteness

The Office Action rejects all claims as indefinite in view of Applicant's latest amendments. In particular, in order to avoid the Examiner's concern about possible misinterpretation of terms such as "spelling translator" and "translating" in the original

claims, Applicant had deleted those terms and amended the claims to recite "converting the spelling of an original text item in the first language into a new text item...". However, because the use of the term "converting" in place of the term "translating" in the claims is not acceptable to the Office, as is evident from the present Office Action, Applicant has amended the claims to again use the original term "translating."

However, the Office Action considers that the use of terms like "translate" in the specification and claims "may cause the claims to be interpreted in ways that are not intended." The Office Action also states, "it appears that the applicant intends to direct the claims towards what is commonly known in the art as transliteration but did not use this term."

Applicant submits that the "translating" claim language is not indefinite, is fully supported by the specification, and is not subject to misinterpretation. The Office Action appears to be focusing unreasonably on how terms like "translating" could be interpreted in a vacuum or how the Examiner may have used a different term like "transliteration," instead of focusing on what the claims and the specification actually describe. M.P.E.P. §2173.02.

For example, amended claim 1 does not merely recite a "means for automatically translating the spelling of an original text item in the first language into a new text item" and stop there. To the contrary, the claim continues on to expressly define a very specific, two-step translating operation that includes:

- (i) identifying each character in the original text item that is not included in the alphabet of the second language, and
- (ii) replacing only said each identified character in the original text item with a character or string in the alphabet of the second language having a pronunciation equivalent or similar to the pronunciation of the identified character in the first language.

Then, a text-to-speech engine that supports the second language and not the first language is used to pronounce the new text item in the pronunciation of the second language.

Independent claims 7, 11 and 16 all recite this level of detail or more. Thus, the claims are very definite in their scope and are not subject to misinterpretation as asserted in the Office Action. In particular, the specifically defined limitations of the claims exclude an interpretation of merely translating a word in one language into a word in another language, or an interpretation that the claims cover transliteration generally. The claims cover exactly what they define – nothing more and nothing less.

The specification is consistent with and supportive of the "translating" claim language as the Office Action concedes. Notably, the specification also does not describe the invention to be merely translating a word from one language to another language, or transliteration generally. Rather, as described for example in the application at Paragraphs 25-31, a place name text item is fed into the spelling translator 6, and the spelling translator 6 "translates" the spelling of the place name text item according to the rules described in the translation rule table 7. In particular, a character in the language (e.g., French or German) of the original text item that is not included in the alphabet of the second language (e.g., English) is "translated into an English alphabet character or string having a pronunciation equivalent or similar to the pronunciation of the French [or German] character." Finally, the converted text item can be produced as a voice output "only using the TTS engine 8 for English."

Further, the use of the term "translate" in Applicant's claimed invention is perfectly appropriate. Specifically, the term "translate" has more than one meaning, and Applicant's use of the term is entirely accurate. This is seen from dictionary definitions of "translate" and "translating" which include the following:

- "(translate into) convert or be converted into another form or medium"
[Compact Oxford English Dictionary of Current English]
- "To change from one form, function, or state to another; convert or transform"
[The American Heritage Dictionary of the English Language: Fourth Edition]

- "Change from one place, state, form, or appearance to another"
[Merriam-Webster Online Dictionary]

Copies of these definitions are enclosed with this paper. Thus, Applicant's described embodiments and claimed invention, which change or convert an original text item into a new text item by the replacement of selected characters, do indeed meet the above accepted definition of "translate." Because Applicant's specification and claims expressly meet this definition of "translate," Applicant's use of the term "translate" is proper. See, e.g., M.P.E.P. §§ 608.01(g); 2111.01 (IV); 2173.05(a) (III).

Consequently, it is seen that the use of the term "translate" in Application's specification and claims is accurate, clear, and definite to describe Applicant's invention, and the specificity of Applicant's claims excludes any possible interpretation that the claims encompass merely translating words from one language to another language, or transliteration generally.

Rejection Under §112/1 Enablement

All claims are also rejected under §112/1 because the Office Action asserts the specification "does not reasonably provide enablement for transliteration conversions which is what the applicant intends to cover based on arguments and interviews of record." Applicant respectfully disagrees with this rejection.

First, the premise of this rejection is incorrect. Applicant, through his written responses and in interviews by Applicant's undersigned attorney, consistently explained the invention according to the specific claim language. Applicant has not contended and does not contend that his invention is the translation of words from one language to another language, or transliteration generally. In fact, it was a prior Examiner who suggested that Applicant's claimed invention related to transliteration. Applicant did not dispute the suggestion, so long as the focus of examination was on the specifically claimed invention.

The "translating" that is claimed in the application is described with particularity. Again, taking amended claim 1 as an example, the means for automatically translating

the spelling of an original text item in the first language into a new text item is unequivocally stated to operate by:

- (i) identifying each character in the original text item that is not included in the alphabet of the second language, and
- (ii) replacing only said each identified character in the original text item with a character or string in the alphabet of the second language having a pronunciation equivalent or similar to the pronunciation of the identified character in the first language.

Then, a text-to-speech engine that supports the second language and not the first language is used to pronounce the new text item in the pronunciation of the second language.

This claim language perfectly tracks and is therefore enabled by the detailed description in the specification. Therefore, Applicant submits that this rejection should be withdrawn.

Rejections Based On The Prior Art

The Office Action rejects all claims as either anticipated by Renegar or obvious in view of Renegar and Conkie, and asserts additional parallel rejections with the addition of Hetherington. Applicant submits that when the actual claim language is considered, rather than general concepts of "translation" or "transliteration," it is seen that the asserted references plainly do not disclose or suggest Applicant's claimed invention.

Renegar/Conkie

Claims 1-6 and 11-18 are rejected as being anticipated by Renegar, and claims 7-10 are rejected as being obvious over Renegar and Conkie. A foundation of this rejection is the Office Action's premise that the term "translation" or the like used by Applicant "has a widely accepted and unambiguous meaning in the English language as pertains to converting from one language to another." Although that is one definition of "translation," it is not the only one, and it is not how Applicant has defined his invention in the claims and in the specification. As explained above, Applicant's claims and specification expressly describe the translation being performed as something more specific and different than the definition of "translation" that the Office Action has applied. The Office Action is also incorrect in its alternative interpretation of the claims as describing transliteration generally.

Referring to the actual claim language, the translating means of claim 1 is expressly defined to operate by:

- (i) identifying each character in the original text item that is not included in the alphabet of the second language, and
- (ii) replacing only each identified character in the original text item with a character or string in the alphabet of the second language having a pronunciation equivalent or similar to the pronunciation of the identified character in the first language.

Then, a text-to-speech engine that supports the second language and not the first language is used to pronounce the new text item in the pronunciation of the second language.

Renegar does not disclose an automated system or method for replacing each character, and only such a character, in an original text item in a first language that is not included in a second, output language with a character or string in the second

language that has an equivalent or similar pronunciation. Moreover, Renegar does not disclose a text-to-speech engine or a method of providing a voice output by pronouncing the new text item according to the pronunciation of the second language, where the text-to-speech engine supports the second language and not the first language.

The Office Action also cites passages of Renegar that mention "transliteration" without attempting to read Applicant's specific claim language on the reference. Applicant's specific character-based analysis of the original text item simply is not disclosed in Renegar.

The Office Action states that "single letter analysis" is not sufficient to overcome Renegar and cites the case of single letter words such as "a" at col. 14, line 47. However, it appears that the Office Action again is focusing improperly on the translation of a word from one language into another language. The cited portion in Renegar does not disclose identifying a character in the original text item that is not included in the alphabet of the second language, replacing only such a character with a character or string in the alphabet of the second language having a pronunciation equivalent or similar to the pronunciation of the identified character in the first language, and then pronouncing the resulting new text item in the pronunciation of the second language using a text-to-speech engine that supports the second language and not the first language.

Renegar/Conkie/Hetherington

As an alternative rejection, the Office Action repeats the rejections of claims 1-18 based on Renegar/Conkie and adds Hetherington. The Office Action concedes that Renegar "does not teach transliteration details" and cites Hetherington for its transliteration engine 220. However, the Office Action does not attempt to match the references to Applicant's specific claim language. In particular, taking amended claim 1 as an example, the combination including Hetherington still does not operate to first identify each character in the original text item that is not included in the alphabet of the second language, then replace only such a character with a character or string in the

alphabet of the second language having a pronunciation equivalent or similar to the pronunciation of the identified character in the first language, and then use a text-to-speech engine that supports the second language and not the first language to pronounce the new text item.

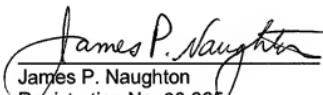
Accordingly, Applicant submits that the presently amended claims are patentable over the cited art, and respectfully requests reconsideration and allowance of this application.

Request for Interview

If the Examiner believes the application still is not in condition for allowance, he is requested to call Applicant's undersigned attorney at 312-321-4723.

Respectfully submitted,

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